S-9,7,4/1

50X1

November 7, 1960

STAT

SUBJECT: Proposed New Project Beacon Transmitter

Dear 50X1

is pleased to submit, herewith, our technical proposal and cost quotation for the subject work. It is suggested that our basic contract be ammended with a new task order to cover this work.

The estimated cost of this work is $6,465.34 and we request a fixed fee, thereon, in the amount for a total selling price of A 50X1
breakdown of these estimated costs is presented on the attached Labor and Overhead Breakdown and Cost Analysis Sheets.

Enclosed are four copies of the Technical Proposal for a Beacon Transmitter. The delivery schedule is detailed in this proposal. One copy of this proposal shall be sent to your contract officer through normal channels.

Should you have any questions or require any additional information concerning this proposal, do not hesitate to contact the undersigned.

Very truly yours,

50X1

Contract Manager

amt

50X1

TECHNICAL PROPOSAL

BEACON TRANSMITTER

INTRODUCTION:

[redacted] is pleased to submit a proposal to develop and build a battery powered, transistorized, medium frequency transmitter. STAT

GENERAL DESCRIPTION:

The transmitter [redacted] proposes to build will be approximately "cigar box" size. Most of the volume and weight will be due to the batteries. The unit will be as simple as possible consistent with the requirements of the customer. It will be designed to transmit continuously at temperatures of up to 70°C. At periodic intervals the carrier will be interrupted a few times to identify it. STAT

The transmitter portion will consist of a crystal controlled power oscillator driving an output stage capable of delivering at least 10 watts of medium frequency power output in the 1500kc to 1800kc region.

An electronic timer will be used to switch the carrier off for a number of brief intervals once in about every 30 seconds to enable identification of the carrier. This will be done with the simplest possible circuit which will provide a recognizable signal.

The battery will consist of a number of flashlight sized ("D") mercury cells in series providing most of the weight and size of the unit.

A collapsible antenna which will extend from 15 inches to 16 feet will be used with a loading coil. The antenna will mount to the transmitter case as a base. Extenders will be provided if the case does not prove to be sufficiently heavy to form a stable mounting platform.

The only external control will be an on-off switch. A connector will be provided to hold the loading coil and antenna. It is desired that all tuning of the unit be done before operation and no field tuning or trimming be necessary. This will be done if electrically feasible. If adjustment should be required, equipment will be provided.

Time is important to the customer and [redacted] will make every effort to provide STAT a well designed, thoroughly tested unit at the soonest possible date.

The following goals will be used during the design of the transmitter:

Power Output:	Greater than 10 watts
Frequency Range:	1500 to 1800 kc
Power Input:	Approximately 25 watts
Operating Temperature:	-30°C to +70°C with less than 3db change in output exclusive of power supply. With the mercury pack provided, +20° to +70°C operation.
Operate Time:	Continuous transmission for over 3 hours
Size:	Approximately 9" x 5" x 2 1/2"

PLAN OF ATTACK:

As soon as the project commences, parts will be ordered to cover long delivery items. Circuit design will start immediately. Close scheduling will provide the customer with two well designed thoroughly tested units in 45 days. At the conclusion of the project a final report combined with a basic instruction manual will be supplied the customer.

SCHEDULE OF DELIVERABLE ITEMS:

Item	Description	Quantity	Delivery
1	Beacon Transmitter	2	45 days after start
2	Extra Battery Pack	2	45 days
3	Antenna and Loading Coil	2	45 days
4	Final Report & Instruction Manual	10	45 days
5	Reproducible Engineering drawings	1 set	75 days after start

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